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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/913,781	06/12/2002	Vincenzo Vassarotti	3568.069	3766

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EXAMINER

MENON, KRISHNAN S

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 08/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/913,781	Applicant(s) VASSAROTTI, VINCENZO	
	Examiner Krishnan S Menon	Art Unit 1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1,3,4 and 9 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Wilson (US 3,583,627).

Wilson teaches a device for concentrating macromolecules comprising a concentration chamber (14) with an aperture (at 21), a filtrate chamber (16) with an aperture (at 26), a membrane (36) situated between the apertures and separating the concentrate and filtrate chambers, gasket means (40) around the apertures and in contact with the membrane, membrane having feed and permeate side (see col 3 lines 9-32), membrane support means (34,42), and pressure resistant sleeve (22) applying compressive force to hold the membrane fluid tight against an aperture as in claim 1 (see fig 1 and 2, and col 1 line 55 – col 2 line 30). The sleeve (22) is one part as in claim 3 and gasket is O-ring as in claim 4.

Wilson teaches a method of manufacturing a device for concentrating macromolecules comprising a concentration chamber (14) with an aperture (at 21), a filtrate chamber (16) with an aperture (at 26), a membrane (36) situated between the apertures and separating the concentrate and filtrate chambers, gasket means (40) around the apertures and in contact with the membrane, membrane support means (34,42), and pressure resistant sleeve (22), the method comprising arranging the gasket around an aperture, covering an aperture with a membrane having a feed side and a permeate side (see col 3 lines 9-32), assembling to align the first aperture over the second aperture, and fitting the pressure resistant sleeve (22) around to seal the concentration and filtrate chambers (see fig 1 and 2, and col 1 line 55 – col 2 line 30).

2. Claims 1-3 and 5 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Vassarotti (US 5,647,990).

Vassarotti teaches a device for concentrating macromolecules comprising a concentration chamber (1,4, fig 1,2,7) with an aperture (at 3), a filtrate chamber (3) with an aperture (at 3), a membrane (22-fig 2; in frame 7 of fig 3) situated between the apertures and separating the concentrate and filtrate chambers, gasket means (24-fig 2) around the apertures and in contact with the membrane, membrane having feed and permeate side (sides facing 4 and 3 respectively), membrane support means (23), and pressure resistant sleeve (25) applying compressive force to hold the membrane fluid tight against an aperture as in claim 1 (see figures, col 3 line 55 – col 4 line 67, and col 5 lines 1-39). The sleeve comprises one or two parts as in claims 2 and 3 (25 and 5). The gasket means is integral as in claim 5 (see fig 2, col 4 line 20, and lines 33-43)

3. Claims 1, 7 and 8 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Root et al (US 4,948,564).

Root teaches a device for concentrating macromolecules comprising a concentration chamber (20-fig 8) with an aperture (at 130), a filtrate chamber (140) with an aperture (at 136), a membrane (col 4 lines 40-50) situated between the apertures and separating the concentrate and filtrate chambers, gasket means (col 4 lines 46-50) around the apertures and in contact with the membrane, membrane having feed and permeate side (see figure 4,8), membrane support means (120-fig 8), and pressure resistant sleeve (150-fig 8) applying compressive force to hold the membrane fluid tight against an aperture as in claim 1. the device has plurality of concentrate and filtrate chambers for receiving plurality of liquid samples as in claim 7, and are adapted for matingly engaging receptacles of a microtiter plate (see col 6 lines 56-65).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 4 and 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vassarotti (990).

Vassarotti (990) teaches all the limitations of claims 1-3 and 5. Claim 4 adds the limitation of O-ring. Vassarotti (990) teaches a rectangular gasket (24-fig 2), and does not specifically teach O-ring. However, it would be obvious to one of ordinary skill in the art at the time of invention that the size and the shape of the gasket may be modified to make the best fit as the window 7 is adjusted dependent upon the characteristics of the process and the warranted filtration rate as taught by Vassarotti (990) (see col 4 lines 43-54). [Also, "Changes of size, shape, etc without special functional significance are not patentable". *Research Corp. v. Nasco Industries, Inc.*, 501 F2d 358; 182 USPQ 449 (CA 7), cert. denied 184 USPQ 193; 43 USLW 3359 (1974)]. Claim 6 adds further limitation of 'generally cylindrical' and tapering or conical sleeve. Vassarotti teaches a half cylindrical

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and tapering or conical sleeve (25-fig 7 and col 5 lines 8-25), but not a generally cylindrical sleeve. However, it would be obvious to one of ordinary skill in the art at the time of invention that the general shape of the sleeve could be cylindrical [Changes of size, shape, etc without special functional significance are not patentable. *Research Corp. v. Nasco Industries, Inc.*, 501 F2d 358 (1974)].

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krishnan S Menon whose telephone number is 703-305-5999. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L Walker can be reached on 703-308-0457. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Krishnan Menon
Patent Examiner


W. L. WALKER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700